WE CLAIM:

1   1.   A method for diagnosis and prognosis of cancer in a subject

2 comprising:

3   (a)   quantitatively detecting annexin protein in a biological

4   sample derived from a subject; and

5   (b)   comparing the level of protein detected in the subject's

6   sample to the level of protein detected in a control sample,

7 wherein an increase in the level of annexin protein detected in the subject's sample as

8 compared to a control sample is an indicator of a subject with cancer.

1   2.   The method of Claim 1 wherein the annexin protein is detected

2 using an immunoassay.

1   3.   The method of Claim 2 wherein the immunoassay is an

2 immunoprecipitation assay.

1   4.   The method of Claim 1 wherein the sample is a lung tissue sample.

1   5.   The method of Claim 1 wherein the cancer is lung cancer.

1   6.   A method for diagnosis of a subject with cancer comprising:

2   (a)   contacting an antibody containing biological sample

3   derived from a subject with a sample containing annexin

4   protein antigens under conditions such that an

5   immunospecific antigen-antibody binding reaction can

6   occur; and

7   (b)   detecting immunospecific binding of the autoantibodies to

8   the annexin protein in the subject's biological sample,

9   wherein the presence of autoantibodies indicates the presence of cancer in the subject.

1   7.   The method of Claim 6 wherein the step of detecting the

2   autoantibodies in the subject's biological sample comprises the use of a signal-generating

3   component bound to an antibody that is specific for antibodies in the subject's biological

4   sample.

1   8.   The method of Claim 7 wherein the presence of autoantibodies in

2   the biological sample is measured by an immunoassay comprising:

3   (a)   immobilizing one or more annexin protein onto a

4   membrane or substrate;

5   (b)   contacting the membrane or substrate with a subject's

6   biological sample; and

7   (c)   detecting the presence of autoantibodies specific for the

8   annexin protein in the subject's biological sample,

9   wherein the presence of autoantibodies indicates the presence of cancer.

1   9.   The method of Claim 6 wherein the cancer is lung cancer.

1   10.   A kit for diagnosis and prognosis of cancer in a subject comprising

2   a component for detecting the presence of annexin protein in a biological sample.

1   11.   The kit of Claim 10 wherein the component for detecting annexin

2   protein is an anti-annexin antibody.

1   12.   The kit of Claim 11 wherein the anti-annexin antibody is labeled.

1   13.   The kit of Claim 12 wherein the label is radioactive, fluorescent,

2   colorimeter or enzyme label.

1   14.   The kit of Claim 11 further comprising a labeled second antibody

2   that immunospecifically binds to the anti-annexin antibody.

1   15.   A kit for diagnosis and prognosis of cancer in a subject comprising

2   a component for detecting the presence of annexin autoantibodies in a sample.

1   16.   The kit of Claim 15 wherein the component is an annexin antigen.

1   17.   The kit of Claim 16 wherein the annexin antigen is labeled.

1   18.   The kit of Claim 16 wherein the annexin antigen is linked to a

2   solid phase.

1   19.   The kit of Claim 15 further comprising a component for detection

2   of the annexin autoantibody.